Prairie Agricultural
Machinery Institute

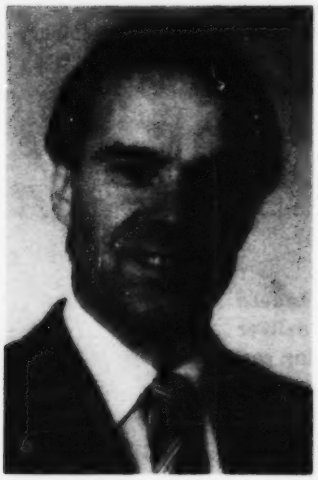
ANNUAL REPORT 1988-1989

90-03449/

"To improve the design and aid in the selection and use of agricultural machinery in the prairie provinces."

In fulfilling this mandate PAMI's role is to deliver leading edge engineering services, working in partnership with farmers and the manufacturing industry to achieve effective use of resources and an ongoing benefit to clients, related industries and the public.

Air Reel Evaluation.

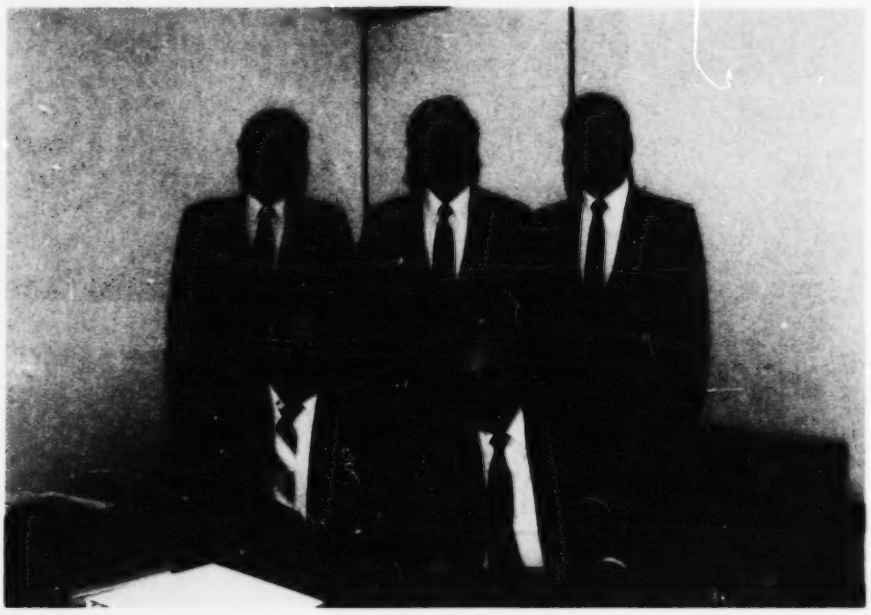


Honourable
Grant Devine
Premier and Minister
of Agriculture and Food
Province of Saskatchewan

Honourable
Glen Findlay
Minister of Agriculture
Province of Manitoba

MEMBERS OF COUNCIL

(To March 31, 1989)



STANDING: (left to right)
Jim Hutch, President, Saskatchewan Research Council, Saskatoon, Sask.
Jim Konkin, Farmer, Kamsack, Sask.
Tom Pringle, Assistant Deputy Minister of Agriculture, Winnipeg, Man.

SEATED: (left to right)
Mervin Sigstad, Farmer, Quill Lake, Sask., Chairman
John Buhler, President, Farm King Allied, Winnipeg, Man., Vice Chairman

LETTER OF TRANSMITTAL

Regina, Saskatchewan
March 31, 1989

Her Honour
The Honourable Sylvia Fedoruk, O.C., S.O.M.
Lieutenant Governor
Province of Saskatchewan

Your Honour:

I have the honor to submit the Annual Report of the Prairie Agricultural Machinery Institute for the Fiscal year ending March 31, 1989.

Respectfully Submitted

Honourable Grant Devine, Premier
Minister of Agriculture and Food

LETTER OF TRANSMITTAL

Humboldt, Saskatchewan
March 31, 1989

Honourable Grant Devine
Premier and Minister of Agriculture and Food
Province of Saskatchewan

Honourable Glen Findlay
Minister of Agriculture
Province of Manitoba

Sirs:

It is my honor to present the Annual Report and Audited Financial Statements of the Prairie Agricultural Machinery Institute for the fiscal year ending March 31, 1989.

Respectfully Submitted

M. Sigstad, Chairman
Prairie Agricultural
Machinery Institute

REPORT OF THE OPERATIONS MANAGER

The 1988/89 fiscal year marked a new beginning for the Prairie Agricultural Machinery Institute (PAMI). The province of Alberta withdrew its support and continued to operate the former Institute station in Lethbridge under the name of The Alberta Farm Machinery Research Centre. As of April 1, 1988 the provinces of Manitoba and Saskatchewan continued to support PAMI through annual grants. During the year PAMI signed a Memorandum of Understanding with the Alberta Department of Agriculture allowing for a continued, close working relationship between both test agencies.

Another noteworthy change was the involvement of the Saskatchewan Research Council (SRC) as a part of the PAMI Management Team. SRC now provides management assistance to PAMI through a Management Contract with the Institute's Council. This is a very worthwhile relationship resulting in a broadened contractual client base, increased fee-for-service revenue and an enhanced network with other research agencies.

The SRC also assisted PAMI Management with developing a Five Year Strategic Plan which provides direction for the years 1989/90 to 1993/94. Implementation of the plan will:

-Promote government's current priority placed on agriculture.

-Provide a good return on investment - government funding is effectively levered.

-Assist in the creation of jobs in rural communities through application of engineering expertise to agricultural and non-agricultural sectors.

-Assist farm machinery manufacturers to diversify into non-agricultural industries.

-Provide programs which contribute to reduced farm costs and increased productivity in the agricultural sector.

The 1989 Financial Statements contained in this report have one significant difference from the previous year. The 1988 figures include operations of the former Lethbridge Station. Also, the Revenue and Expenditure Statment shows an overexpenditure of $116,774. It should be noted that $78,500 of this was budgeted as an overexpenditure.

In closing, I would like to thank our most valuable resources, the PAMI Staff for their professionalism and commitment, and the farmers and manufacturers for their active participation in our organization. I would also like to thank the Saskatchewan Research Council Personnel for their assistance during the year. The PAMI Council is also deserving of much credit for their guidance and direction.

Barrie Broad

Barrie Broad
Operations Manager

Ambulance Ride Assessment.

THE PRAIRIE AGRICULTURAL MACHINERY INSTITUTE

The Prairie Agricultural Machinery Institute Act, which was passed in the Saskatchewan Legislature in 1974, provides the general terms of reference for the Institute. The provinces of Manitoba, Saskatchewan and Alberta then entered into an agreement to operate PAMI as a joint venture. This agreement terminated on March 31, 1988 when the Province of Alberta withdrew its support from PAMI. The provinces of Manitoba and Saskatchewan continued their support to PAMI. The Institute continues to operate test stations in Humboldt, Saskatchewan and Portage la Prairie, Manitoba.

PAMI provides a unique service to farmers and manufacturers as it is the only facility of its kind in North America. The Institute has conducted tests on products for manufacturers ranging from the small farmer inventor to machines produced by the major agricultural manufacturers.

Determining crop losses for pulse crop cutterbar research.

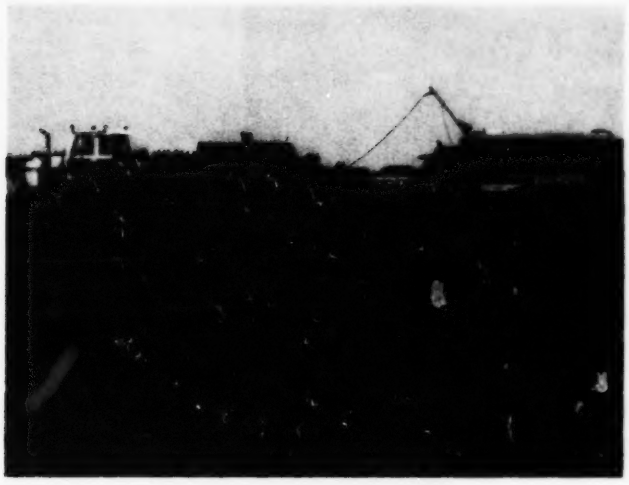
Evaluation

The Institute performs evaluations on agricultural machines offered for sale on the prairies to determine performance characteristics, workrates, power requirements, safety aspects, ease of operation and suitability for prairie agriculture.

Machine selection criteria includes the number of farmer requests for information, prototype design, capital cost, incorporation of new technology, difficulty of predicting performance and current agricultural priorities.

The cost of most evalution projects is funded by provincial grants, however, if a manufacturer's machine does not meet the selection criteria, they can contract PAMI to evaluate their machine. Most evaluations are conducted in conjunction with cooperating farmers and supplemented by laboratory tests when required. Field testing allows test personnel to assess a machine's performance under typical conditions encountered throughout the provinces. Tests are conducted in a wide variety of conditions that a particular machine may be exposed to.

The 1988-89 test season was the second season for PAMI's Prototype Evaluation Program. The Program was a success with about 80% of the machines falling into this program.



Power measurements of a large square baler.

Manufacturer representatives work closely with PAMI test personnel when testing the machine. If performance problems are incurred, manufacturers are given a chance to modify the machine. The evaluation report is issued on the final product tested usually ensuring that the manufacturer markets a better quality product to the farmers.

During the 1988-89 fiscal year 29 evalution reports were mailed to subscribers. Reports were issued on bale movers, mower conditioners, round balers, cultivators, harrow packer drawbar, combines, windrowers, air seeders, front end loader, field sprayer and a chemical extractor.

Approximately 600 machines have been evaluated throughout the Institute's 15 years of operation. During the year covered by this report, evaluations were conducted on round balers, bale transporters, mower conditioners, forage harvester, combines, cultivators, natural air drying systems, windrower, air reels, heat recovery ventilators and electric fence controllers.

Development

The Institute's Development Program assists manufacturers on a fee-for-service basis, with developing and improving machines to suit prairie needs. Projects are usually in the form of prototype testing, design modification, standards compliance, component testing or developing new machine concepts.

Many manufacturers do not have in-house engineering and test facilities. They can contract these services to PAMI as they require them. Fee-for-service contracts are negotiated between the client and the Institute. PAMI provides fast turn around time enabling the manufacturer to get a product on the market quicker or to provide them with a solution to a specific problem resulting in reduced warranty costs and less down time for the farmers. A confidential report is issued to the client at the conclusion of the project.

Considerable effort was put into ex-

panding this program as a part of striving to become more self-sufficient. Efforts were made to expand PAMI's client base and to enhance its testing capabilities. Also, with many agricultural machine manufacturers diversifying into non-agricultural products, PAMI was able to assist them with developing and testing these products.

The Development Program experienced a successful year with 51 projects being undertaken at an average value of $5560. Most clients were small, prairie based manufacturers that required engineering and technical assistance with their product.

Project Highlights:

-Conducted seven tests on roll-over-protective structures to ensure compliance with safety standards

-Three projects to improve natural air drying systems for grain storage bins

-Tested a rotary mower to ensure compliance with safety standards

-Four tests were conducted on harvesting equipment for large manufacturers

-Performed an assessment of a Saskatchewan built street sweeper

-Conducted durability tests on a plastic book binding system

-Conducted durability tests on three cultivator shank assemblies

-Performed two round baler assessments

-Two tests on hydraulic cylinders to assess performance to prescribed standards.

Applied Research

Research projects are conducted on machinery related subjects and usually investigate mechanization to suit new crops, new cultural practices or new technology. These projects are often conducted cooperatively with other agencies such as universities, research agencies, producer groups and manufacturers.

Funding for Research projects during this year was provided by Energy, Mines and Resources Canada, Manitoba Agri-Food, Manitoba Energy and Mines, Saskatchewan Pulse Crop Development Board, Saskatchewan Agriculture Development Fund and the Saskatchewan Canola Growers Association.

Project Summary

-Pulse Crop Cutterbar Study - tested various knife systems and vine lifters for harvesting pulse crops.

-Tools for Disabled Farmers - assessment of tools available to handicapped farmers.

-Designs to Expand Handicapped Farmers' Abilities - assessment of aids required to assist handicapped farmers.

-Development of Pulse Crop Conveying Equipment - assessment of damage caused to pulse crops by various types of conveyors.

-Bale storage techniques.

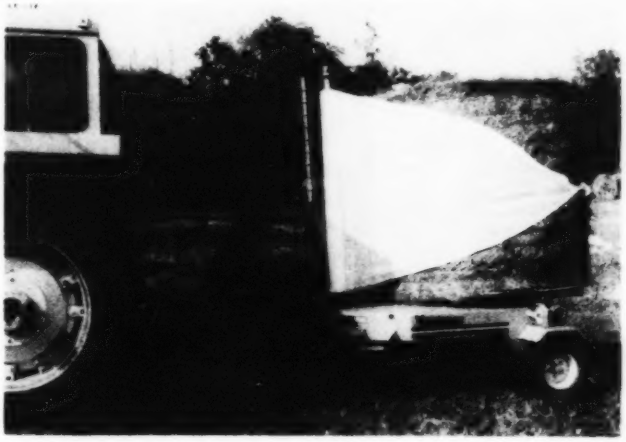
-Pasture Renovation.

-Heat Recovery Ventilators.

Business Development and Information Services

This program involves the promotion of the Institute's services, programs and information and has been renamed from the traditional extension. PAMI's testing services are promoted to manufacturers while test results are promoted primarily to farmers.

PAMI publishers evaluation reports summarizing the performance of the machine during tests. These reports



Bale wrapping research.

are distributed to subscribers and are available to the general public on a request basis. PAMI News is published to keep the public aware of PAMI programs and activities. Other methods of transferring information include facility tours, trade show booths, media, meetings, seminars, clinics and representation on technical committees.

A notable accomplishment during the year was the production of a general promotional video about the Institute. The video can be used to promote PAMI services to manufacturers, and farmers in group or individual situations.

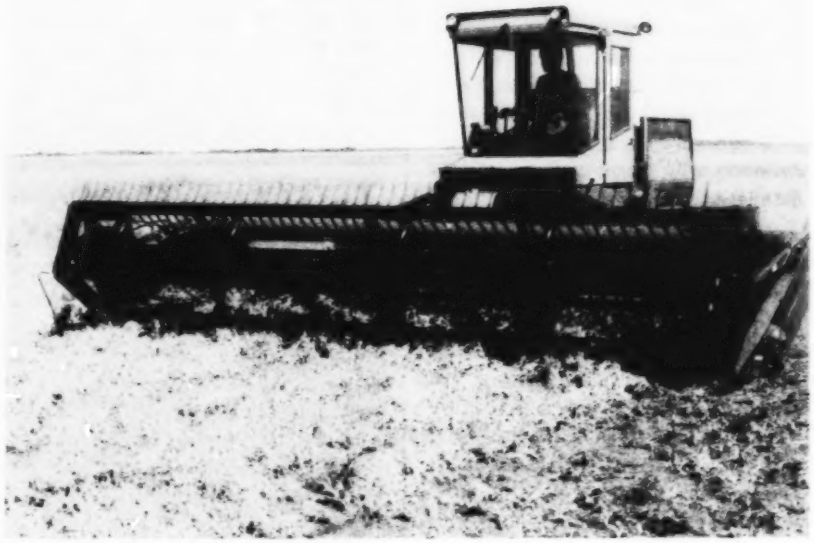
Other activities during the year included the release of 25 newspaper articles; numerous radio and TV interviews; booths at 10 major trade shows; 16 clinics on combines, drying and tillage equipment; over 50 tours, and in excess of 50 meetings and seminars.

Tours were given to delegations or individuals from various countries including England, Poland, China, Venezuela, Sudan, USA, Australia, Denmark and Eastern Canada. PAMI staff also made an additional 12,000 contacts with clients, either by a personal contact, telephone or mail.

Four staff members attended the PAMI Convention in Winnipeg where PAMI co-sponsored the Delegate Breakfast and operated a booth at the trade show.

PAMI was also invited to give a presentation to the Saskatchewan Agriculture Caucus about PAMI programs and activities. The presentation was well received.

Promotion of PAMI testing services to potential clients was a high priority. A Business Development Engineer was hired to promote the Institute's services.



Pulse crop windrowing research.

STAFF OF THE PRAIRIE AGRICULTURAL MACHINERY INSTITUTE

(as of January 1990)

Head Office

Saskatchewan Research Council
Management Representative
George MacKay
Operations Manager
Barrie Broad
Business Development Engineer
David Gullacher
Librarian
Sharon Doepker
Accounting Assistant
Marilyn Malinski
Clerical
Paulette Moorman
Susan McInnes

Humboldt Station

Station Manager
James Wassermann
Senior Development Engineer
Philip Leduc
Extension Coordinator
Ken Maloff
Project Managers
Darrell Lischynski - Energy and Processing
Leslie Hill - Harvesting
Craig Hanson - Soils and Crops
Department Managers
Ted Bay - Shop
Greg Burton - Computers
Dave Kelly - Graphics
Wayne Morley - Electronics
Project Engineers/Technologists
Alan Boyden
Sheldon Grywacheski
Wayne Stock
Shop Technician
Murray Cook
Caretaker
Glen Karlash
Administrative Assistant
Marina Haeusler
Clerical
Bonita Callele
Lori Horning

Portage la Prairie

Station Manager
Bruce Allen
Project Managers
Doug May
Craig Chapman
Ryan Schott
Robert Harris
Department Managers
Ken Carmichael - Electronics
Dan Dyck - Graphics
Murray Lone - Shop
Administrative Assistant
Lindy King

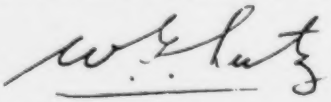
Farm group tour.

AUDITOR'S REPORT

To the Members of the Legislative Assembly
Province of Saskatchewan

I have examined the statement of financial position of the Prairie Agricultural Machinery Institute as at March 31, 1989 and the statements of revenue, expenditure and fund balance and changes in financial position for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Prairie Agricultural Machinery Institute as at March 31, 1989 and the results of its operations and the changes in its financial position for the year then ended in accordance with the accounting principles disclosed in Note 1 to the financial statements applied on a basis consistent with that of the preceding year.



Regina, Saskatchewan
June 15, 1989

W.G. Lutz, F.C.A.
Provincial Auditor

Statement 1

Statement of Financial Position
As at March 31, 1989

Assets	1989	1988
Current		
Bank	$ 201,611	$ 158,418
Short term investments, at cost	148,372	547,574
Accounts receivable	235,829	138,918
Travel advances	6,870	1,120
Prepaid expenses	50,160	15,154
	642,842	861,184
Fixed: at cost		
Buildings	1,943,891	1,943,891
Equipment	1,413,352	1,396,350
Land and improvements	300,164	300,164
Furniture	215,921	215,921
Vehicles	149,940	149,940
Equipment for evaluation	63,258	63,258
Reference material	12,970	12,970
Assets under capital leases	—	37,111
	4,099,496	4,119,605
	$4,742,338	$4,980,789

(See accompanying notes to the financial statements)

	1989	1988
Liabilities and Fund Balance		
Current Liabilities:		
Accounts payable	$ 346,282	$ 454,772
Unearned subscription income	40,976	41,485
Project advances	28,997	21,000
Obligations under capital lease	—	3,147
	416,255	520,404
Non-Current Liabilities:		
Unearned subscription revenue	58,639	59,714
Less current portion	40,976	41,485
	17,663	18,229
Obligations under capital lease	—	3,147
Less current portion	—	3,147
	—	—
Fund Balance:		
Fixed assets (Note 3)	4,099,496	4,116,458
Operating (Statement 2)	208,924	325,698
	4,308,420	4,442,156
	$4,742,338	$4,980,789

(See accompanying notes to the financial statements)

PAMI booth at Western Canada Farm Progress Show in Regina.

Statement 2

Statement of Revenue, Expenditure and Fund Balance

Year Ended March 31, 1989	1989	1988
Revenue		
Provincial grants (Note 1(d))		
-Saskatchewan	$ 957,120	$ 957,120
-Manitoba	425,380	425,380
-Alberta	—	622,000
	1,382,500	2,004,500
Fee for service (Note 1(c))	353,081	417,723
Investment income	57,257	65,887
Other income	42,637	50,391
Subscription income (Note 1(b))	56,044	59,215
Total revenue	1,891,519	2,597,716
Expenditure (Schedule 1)	2,008,293	2,870,303
Deficiency of revenue over expenditure	116,774	272,587
Fund balance, beginning of year	325,698	773,661
	208,924	501,074
Operating fund balance transferred to the Government of Alberta (Note 5)	—	(175,376)
Fund balance, end of year (Statement 1)	$ 208,924	$ 325,698

(See accompanying notes to the financial statements)

Snow trapping demonstration.

Statement 3

Statement of Changes in Financial Position
Year Ended March 31, 1989

	1989	1988
Cash provided by (used in) operating activities:		
Deficiency of revenue over expenditure	$(116,774)	$(272,587)
Changes in non-cash working capital		
Increase in accounts receivable	(96,911)	(60,145)
(Increase) decrease in travel advances	(5,750)	5,920
(Increase) decrease in prepaid expenses	(35,006)	3,053
(Decrease) increase in accounts payable	(108,490)	330,464
Increase in project advances	7,997	13,240
	(238,160)	292,532
Decrease in unearned subscription revenue	(1,075)	(12,888)
Cash (used in) provided by operations	(356,009)	7,057
Transfer of operating fund balance to the Government of Alberta (Note 5)	–	(175,376)
Net decrease in cash during the year	(356,009)	(168,319)
Cash and short term investments, beginning of year	705,992	874,311
Cash and short term investments, end of year	$ 349,983	$ 705,992

(See accompanying notes to the financial statements)

Notes to the Financial Statements
March 31, 1989

1. Significant Accounting Policies

These financial statements have been prepared in accordance with accounting policies that are considered appropriate for organizations of this type. The significant accounting policies are as follows:

a) Fixed Assets
The acquisitions of fixed assets are financed primarily through grants received from the Provinces of Manitoba and Saskatchewan and are accounted for on a fund accounting basis. In the statement of revenue, expenditure and fund balance (Statement 2), all grants are recorded as revenue and the purchase of fixed assets are recorded as an expense. Assets acquired and accounted for as capital leases are expensed as the related principal portion of the obligations under the capital leases are reduced. Accordingly, no provision has been made for depreciation of fixed assets. To maintain accountability for fixed assets, they are recorded as a balance sheet asset with a corresponding entry to either the Fund Balance "Fixed Assets" or "Obligations Under Capital Leases". As the principal portion of the "Obligation Under Capital Leases" are reduced, the related amounts are credited to the Fund Balance "Fixed Assets".

b) Unearned Subscription Income
Subscription revenue for published reports is taken into an unearned subscription account as received and is amortized to income as the revenue is earned. The portion which relates to future years is shown as unearned subscription income in the Statement of Financial Position.

c) Fee for Service
Fee for service revenue on research contracts is recognized on the accrual basis to the extent that costs have been incurred.

d) Funding
In accordance with an agreement signed by the Provinces of Manitoba and Saskatchewan, funding of the operating budget is received in the following proportions:

Manitoba	30.77%
Saskatchewan	69.23%

The Institute, in accordance with the authority included in Order-in-Council 1800/79, follows the policy of retaining the excess of revenue over expenditure received in the year.

2. Incorporation

The Prairie Agricultural Machinery Institute was established as a body corporate under The Prairie Agricultural Machinery Institute Act. Chapter 2, 1973-74. Revised Statutes of Saskatchewan and is continued under Chapter P-21. Revised Statutes of Saskatchewan, 1978.

The purpose of the Institute include:

a) to test and appraise under actual or simulated working conditions, machinery sold or offered or intended for sale:

b) to publish such reports, pamphlets and bulletins as are consistent with the intent of the Act.

c) to undertake development work to improve and develop machinery for agricultural use.

3. Fund Balance, Fixed Assets

	1989	1988
Fixed assets, March 31	$4,099,496	$4,119,605
Less obligation under capital leases	—	(3,147)
Fund balance, fixed assets	$4,099,496	$4,116,458

4. Government Assistance

During the 1989 fiscal year, the Institute received government assistance related to employment of students in the following amounts:

	1989	1988
Government of Canada	$22,002	$22,767
Province of Manitoba	—	2,277
	$22,002	$25,044

These amounts are included in other income in the statement of revenue, expenditure and fund balance.

5. Effective March 31, 1988, Alberta withdrew from the Institute.

The Lethbridge Station and cash totalling $175,376 was transferred to the Alberta Department of Agriculture in accordance with the addendum to agreement between the Government of Saskatchewan, Alberta and Manitoba entered into October 10, 1974.

6. Contingency

The Prairie Agricultural Machinery Institute has been named as defendant in a law suit. The outcome of this legal proceeding is not determinable at this time. The amount payable, if any, will be funded by the provinces of Alberta, Saskatchewan and Manitoba, in accordance with the agreement signed October 24, 1974, in the following proportions:

Alberta	35%
Manitoba	20%
Saskatchewan	45%

7. Related Party Transactions

Included in these financial statements are income and expense amounts resulting from routine operating transactions conducted at prevailing market prices with various government departments, agencies and corporations with which the Prairie Agricultural Machinery Institute is related.

Account balances resulting from these transactions are included in the Balance Sheet and are settled on normal trade terms.

Other amounts owing to related parties and their terms of settlement are described separately in the financial statements and notes thereto.

Evaluation of a Forage Harvestor.

Schedule 1

Schedule of Expenditure

Year Ended March 31, 1989	1989	1988
Salaries	$1,235,820	$1,574,006
Employee benefits	121,928	169,852
Travel and vehicle operations	102,021	133,584
Insurance, licenses and taxes	88,810	117,098
Stationery and office supplies	64,810	81,722
Utilities	62,634	67,451
Shop supplies	55,036	136,023
Telephone and telegraph	48,498	60,869
Contractual services	41,923	30,142
Rent - building and equipment	38,481	65,592
- equipment to be evaluated	1,144	1,004
Repairs and maintenance - building and equipment	34,405	55,070
Printing and binding	28,855	100,790
Equipment	21,268	133,375
Computer services	18,283	26,293
Advertising and promotion	17,119	16,017
Professional and technical services	15,980	16,686
Reference material	5,594	9,292
Bad debts	3,950	56,417
Honoraria	1,645	7,418
Interest expense - leases	89	3,580
Furniture and fixtures	—	7,000
Equipment - machinery to be evaluated	—	1,022
	$2,008,293	$2,870,303

Roll over protective structure test.